

**Pre-Appeal Brief Request for Review**

FILED ELECTRONICALLY

PATENT APPLICATION  
Docket No. 16020.1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of	)	
	)	
	)	
Felix R. Buchenroth III	)	
	)	
Serial No.:	10/828,565	) Art Unit
		) 1732
Filed:	April 21, 2004	)
		)
For:	REEF ARTIFACT	)
		)
Confirmation No.:	5267	)
		)
Customer No.:	022913	)
		)
Examiner:	Hsien Ming Lee	)

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

A succinct, concise and focused set of arguments for which the panel review is being requested begins on page 2.

## REMARKS

Reconsideration of the application by a panel of examiners is respectfully requested in view of the following remarks. Please note that the following remarks are not intended to be an exhaustive enumeration of the distinctions between any cited references and the claimed invention. Rather, the distinctions identified and discussed below are presented solely by way of example to illustrate some of the clear errors and omissions in the rejections. In addition, Applicant requests that the Panel carefully review any references discussed below to ensure that Applicant's understanding and discussion of the references, if any, is consistent with the Panel's understanding.

### **A. Rejection of Claims under 35 U.S.C. § 103(a)**

The Patent Office rejects claims 30-33, 35, 38, 39, and 46 under 35 U.S.C. § 103(a) as being unpatentable over *Virgili* (U.S. Pat. No. 4,496,511) in view of *Hudson* (U.S. Pat. No. 5,215,406). Applicant respectfully traverses this rejection as based on clear error. The rejection is clearly erroneous because the references do not teach or suggest all of the limitations of the claims.

According to the applicable statute, a claimed invention is unpatentable for obviousness if the differences between it and the prior art "are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art." 35 U.S.C. § 103(a) (1994); *Graham v. John Deere Co.*, 383 U.S. 1, 14 (1966); MPEP § 2142. Obviousness is a legal question based on underlying factual determinations including: (1) the scope and content of the prior art, including what that prior art teaches explicitly and inherently; (2) the level of ordinary skill in the prior art; (3) the differences between the claimed invention and the prior art; and (4) objective evidence of nonobviousness. *Graham*, 383 U.S. at 17-18; *In re Dembiczak*, 175 F.3d 994, 998 (Fed. Cir. 1999). It is the initial burden of the PTO to demonstrate a prima facie case of obviousness, which requires the PTO to show that the relied upon references teach or suggest all of the limitations of the claims. MPEP § 2142.

The claimed invention is generally directed to a reef artifact designed to simulate a naturally occurring reef. Independent claim 30 is a method claim that recites, among other things: "providing a reef-like formation having a varied surface."

*Virgili* describes a method of molding stone faced pillars by, first, attaching stone pieces onto a wooden base; covering the exposed surface of the base with Plaster-of-Paris; creating a mold of the assembled wooden base, stone pieces, and Plaster-of-Paris; and, finally, pouring cement into the mold. *See Abstract*. According to the Examiner, the method described by *Virgili* includes providing a formation having a varied surface. *See* final Office Action, p. 2. When referring to the “reef-like formation” recited in claim 30, the Examiner has omitted the phrase “reef-like.” In fact, *Virgili* does not describe providing a *reef-like* formation having a varied surface. Instead, *Virgili* describes a formation consisting of a wooden base, some of which is coated with Plaster-of-Paris. A reef like formation is one that has the appearance of coral or simulates the contours of a coral reef. *See Application at ¶¶ [031]-[032]*. Neither the wood nor the Plaster-of-Paris in *Virgili* is in any way “reef-like,” as required by claim 30.

*Hudson* describes an artificial reef module and a method for its construction. *See Title*. However, the Examiner only relies on *Hudson* for its teaching of providing and adhering reef-organism structures to a formation. *See* final Office Action, p. 3. The Examiner does not rely on *Hudson* or any other reference to provide the teaching of providing a *reef-like* formation to which the reef-organism structures are attached.

In responding to the Applicant’s arguments from the first Office Action, the Examiner has taken the position that the Applicant’s arguments “appear to be drawn to a particular *shape or structure*, which do not patentably distinguish the *method* by limitations that would materially affect the process.” *See* final Office Action, p. 13 (emphasis in original). From the Examiner’s comments in the Office Action, it appears that the Examiner believes it is not necessary to give weight to the claimed structure (i.e., “reef-like”) because the claim is directed to a process.<sup>1</sup>

However, as clearly stated in MPEP § 2116, “The materials on which a process is carried out must be accorded weight in determining the patentability of a process. *Ex parte Leonard*, 187 USPQ 122 (Bd. App. 1974) (Emphasis added). It is incorrect to not give weight to the claimed materials used in the process. The reef-like formation recited in claim 30 is not an end product;

---

<sup>1</sup> Other comments made by the Examiner in the Office Action illustrate this point. For example, in addressing the combination of *Hudson* and *Virgili*, the Examiner stated, “...Virgili could stand alone [in] this regard because the differences claimed but not explicitly disclosed by Virgili are drawn [to] the particular shapes produced.” *See* final Office Action, p. 14.

rather it is used in the process and affects what is produced by the process. The Applicant submits that the Examiner's failure to give weight to the phrase "reef-like" is clear error.

The first and final Office Actions also do not set forth any motivation, teaching, or suggestion for modifying the *Virgili* process to be carried out on a "reef-like formation." Furthermore, the mere fact that the *Virgili* molding process can be carried out on materials other than wood and stone is not motivation to use a "reef-like formation" to make a mold, as required by claim 30.<sup>2</sup> *See in re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

Therefore, the Section 103(a) rejection of claim 30 should be withdrawn. The rejection of dependent claims 31-33, 35, 38, 39, and 46 should also be withdrawn at least because these claims depend from claim 30.

Independent claims 47 and 50 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Virgili* in view of *Hudson*, *Finelt* (U.S. Patent No. 3,095,605), and *Poe* (U.S. Patent No. 3,254,379). Claims 47 and 50, although of different scope, each recite elements similar to those of claim 30 discussed above. Moreover, *Finelt*, which is directed to a combined vulcanizer press wax injector for use in manufacture of small metal jewelry and other relatively small objects, fails to cure the deficiencies of *Virgili* and *Hudson* discussed above. *Poe*, which is relied on for its teaching of assembling wax or plastic patterns into clusters on a base to form a precision casting mold, similarly fails to cure the deficiencies of *Virgili* and *Hudson*. Therefore, the rejection of claims 47 and 50 should also be withdrawn.

Dependent claims 34-37, 40-45, 48, and 49 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Virgili* in view of *Hudson* and further in view of various other references, which the Examiner relied on for their alleged teaching of elements recited in each of these dependent claims. However, none of the various other references teach or suggest "providing a reef-like formation having a varied surface," as claimed. Therefore, the references fail to cure the deficiencies of *Virgili* and *Hudson* with respect to independent claims 30, 47, and

---

<sup>2</sup> During prosecution, the Examiner pointed out that the selection of stones placed on the formation is an "aesthetic variable which is at the discretion of the artisan." This argument was not raised with respect to the term "reef-like formation," presumably because the Examiner did not give any weight to "reef-like." However, the Applicant submits that in the claimed invention, the selection of the reef-like formation is not merely aesthetic. The reef-like formation performs the function of providing a habitat for microorganisms that then draw aquatic life to the area. *See Application ¶ [009]* Thus the selection of a "reef-like" formation provides functionality beyond aesthetics.

50. Accordingly, the rejection of claims 34-37, 40-45, 48, and 49, which depend from claim 30, 47, or 50, should be withdrawn.

**B. Rejection of Claim 50 under 35 U.S.C. § 103(a)**

Applicant respectfully traverses the rejection of claim 50 for the reasons discussed above and, in addition, because the references do not teach or suggest the following claim elements:

providing a plurality of molded reef-organism structures that simulate a real reef organism wherein providing a plurality of molded reef-organism structures that simulates a real reef organism comprises:

selecting a plurality of dehydrated reef organisms.

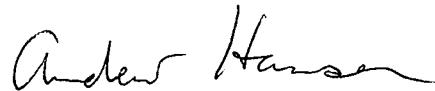
The Examiner properly observes that *Virgili* is silent with respect to these claim elements. *See* final Office Action, p. 10. The Examiner alleges, however, that “these aspects would have been *prima facie* obvious [because] Hudson teaches that it is desirable to cover a surface with coral species, which is a reef-like organism structure.” *See id.* (citing *Hudson*, col. 6, ll. 42-47). *Hudson* describes covering the inner and outer surfaces of a dome with carbonate rocks or living coral species. Carbonate rocks or living coral species do not constitute or even suggest “dehydrated reef organisms,” as required by claim 50. Therefore, for this additional reason, the rejection of claim 50 should be withdrawn.

**CONCLUSION**

In view of the foregoing, Applicant believes the claims as amended are in allowable form. In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, or which may be overcome by an Examiner's Amendment, the Examiner is requested to contact the undersigned attorney.

Dated this 15<sup>th</sup> day of August 2006.

Respectfully submitted,



ANDREW S. HANSEN  
Registration No. 56,370  
Attorney for Applicant  
Telephone: (801) 533-9800